

ENERGY EFFICIENCY & RESOURCE MANGEMENT COUNCIL

Minutes—May 14, 2009

Conference Room B, Department of Administration

Chairman Ryan called the meeting to order at 3:40 PM

Members Present: Paul Ryan, Chris Powell, Sam Krasnow, Vic Allienello, Tim Stout, Dan Justynski, Joe Newsome, and Andy Dzykewicz

Others Present: Libby Kimsey, Elizabeth DiLucia and Tom Teehan

Staff Present: Janet Keller, Matt Guglielmetti, and Charles Hawkins

Consultants: Scudder Parker and Mike Guerard

Executive Director Report:

Andy D. introduced Scudder Parker to give an update on VEIC's work with NGrid to address target areas such as: gas/electric integration; regional and national best practices; Phase II Opportunity Report; monitoring and verification; and innovative delivery mechanisms such as the Aquidneck Island EE pilot project.

In best practices, NGRID now has one person working on residential gas & electric programs and one person on commercial and industrial gas and electric. Scudder said that it helps with integration of gas & electric delivery. NGrid staff has added new staff for the ramp up.

Dan J. asked who the new NGrid contacts were? They are Mark DiPetrillo on Commercial & Industrial, John Sarnia on residential.

VEIC is also working closely on Aquidneck Island with NGrid and People's Power & Light to develop "social marketing" in an area with gas & electric constraints. Jeremy N. put together a meeting with stakeholders such as Karina Lutz to develop community based targeted delivery. The goal is to develop a "cutting edge partnership".

Andy D. expressed concern about the ability to get the work done. Paul R. wondered about the ability of NGrid to get work done.

Scudder says it is an issue in Massachusetts.

A discussion then ensued about having a separate council meeting to address the supply issue. Paul R. felt an extra meeting in June may be needed.

Tim S. was concerned about getting the word to contractors that there is money available.

Scudder P. thought it was a good opportunity to train contractors to do the job right. Quality the key to get to EE goals.

Sam K. said it made sense to have two meetings and to include the supply and contractor issue. A discussion was then held about meeting logistics.

Sam K. wanted to focus on the data that needs to be gathered for such a meeting. Andy D. again mentioned resource availability as a prime concern. Andy wanted to talk to RIDLT about training for EE contractors and get it up and running quickly. Should a DLT rep be invited on 6/4?

Paul R. mentioned CCRI Weatherization training. Janet K. said that the class part has been completed but a written and field test still needs to be taken. There may be a disconnect between BPI & CCRI.

Andy D. wanted the 6/4 meeting to focus on supply. He cited time constraints. He talked about the Wiley Center's interest in getting some of their people trained to be contractors.

VEIC will gather data for the meeting and do interviews. Talk with CAPs, talk with DLT people especially Sandra Powell. Andy said the DLT has ARRA training money for the stimulus that can be used instead of SEP & EECBG funding.

Joe N. brought up a seminar that was held by Council of Churches that highlighted the problems churches are having with energy issue. He mentioned that he would like to make sure the council does not lose sight of special populations like this. Scudder suggested putting it into innovative partnerships.

Paul R. then mentioned a Renewable Energy Conference in Boston on 6/25 & 6/26 that he felt would be something helpful for Council member to attend. He said it should be paid for out of the EERMC budget which is administered by NGrid. He asked if he could get a head count from members as soon as possible.

Janet K. said 6/25 was the day the EECBG grant submittal was due to the USDOE.

Dan J. suggested moving the meeting if members would be going to Boston. Monday 6/29 was decided to be a better date for the second meeting. **The next meeting of the EERMC would then be Thursday June 4th, with ARRA supply as the main topic and then a regular EERMC meeting will be held on Monday June 29th.**

A motion was made by Dan J. to authorize voting members of the EERMC to attend a Two-Day Renewable Energy in New England Conference in Boston on 6/25 & 6/26. It was seconded and approved.

ARRA UPDATE

Andy D. thanked the people responsible for getting the grant applications to the USDOE. They supported the approach of submitting the application on a programmatic and not a project basis. He thanked the staff especially Janet K.

The 23.9M of the SEP was split with \$8 M going to EE projects \$13 M to renewable energy projects. The rest went to mandatory energy code training and administrative costs. More funding went to renewable energy because other EE funding will be available from other programs like EECBG.

OER is now going through a process with cities & town about EECBG. They will be encouraged to use it for revolving loans or performance contracting to stretch the money. The ERT will put out a solicitation for specific projects and the team will decide.

There were also 2 Weatherization grants; the regular WAP and the ARRA WAP.

A question was asked about what the 10 RI cities getting direct EECBG funding can spend it on. Janet K. said that there were 14 separate categories with the last one being "other". She also mentioned a conference call where other states seemed to be focusing on three areas: Performance contracting; revolving loans; and incentives for leveraging funding for multiply towns to join together in a performance contract.

Paul R. cited Providence's \$1.7 in EECBG and already contacting Ameresco. He said that the big companies will be getting the business. N.Y is spending millions just on lighting only three companies were qualified to bid. This is a problem for the little guys. Tim S. mentioned staffing problems in cities and towns.

Andy mentioned normal SEP grant is due this month. He also mentioned the appliance rebate program that is formula and going through the SEOs. RI would get about \$1.5 for Energy Star rebates. OER still has not received the guidance.

Chris P. asked about money for CHP in ARRA. Andy D. said there is nothing specific on CHP. Andy envisions 2 RFPs on SEP one on EE and one on renewables.

Jobs create and BTUs saved are the only metrics that seems to count. No carbon reduction.

Joe N. asked how you measure job retention and he wanted to know if the ARRA SEP supersedes the SEP already in place. Janet K. said the SEP now in effect was last updated in 2002. Grant guidance requires states to have a conservation strategy. Ken P. was working to update the plan to do two things: get it properly updated and into the state guide plan; then do some serious measurement and modeling data.

Sam K. expressed admiration for Janet K's efforts. Everyone applauded. Janet just learned that the \$450,000,000 in competitive EECBG funding will go to RFP in about 6

weeks. \$55M will go to smaller cities and the rest will be an open competition with everyone eligible. RI should try and go after some of this funding.

RGGI UPDATE

The hearing was held and the response was mostly positive. There were two things that needed to be addressed: enlarge the list of eligible entities to include large commercial and industrial users which was addressed by Tech-RI and to also include sewage treatment and drinking water plant which was expressed by the NBC; and secondly to give more clarity to the process that the 40% innovative pot will be allocated. Janet K. hopes this process will be simple and that the Plan will not have to go out to hearing again.

Sam K. mentioned a mark-up of Markey's Cap & trade bill in Waxman's U.S. House Committee next week. There is talk of preempting RGGI from 2012-2017. RI needs to make sure that when the federal bill is done it has significant allowances going to EE so the 10 RGGI states can stay whole to insure LCP gets done. Sam K. worries about Cap & Trade funding going to the general fund. He wants 25% of federal funding go to EE. Right now in the House bill it is well below that.

In the Senate, RI senators are sympathetic and aware of the issue.

Dan J. talks about cap & trade as a regressive tax and that will adversely affect low and middle ratepayers. Paul R. said there are votes to stop Waxman's bill. He does not think it will be an issue.

Dan J. said that the public does not understand cap & trade and how this will be passed on to the public. Andy D said that the Obama people are pushing cap & trade hard because they believe the voters want it.

Andy D. cited NGRID's 4/2/09 letter to Beverly Narjarian which mentions innovative concepts such as on-bill financing and revolving loans that seemed to align with what will be solicited in the RGGI 40% innovative project pot.

Paul R. asked about the availability of RGGI funding. Janet answered that it depended on whether another public hearing can be avoided. The key is what constitutes a substantive change.

Joe N. brought up the report to the General Assembly on RGGI. In the powers and duties of the council it calls for the report to address three issues: 1. activities of the council, 2. assessment of energy issue status of System Reliability and EE conservation procurement and 3. recommendations to the legislature regarding improvements that may be necessary. He feels that the council failed to address the second two items and they may want to address them in next report

Sam K. said that the first two issues were raised in the report but that Joe N. is correct about failing to address item number 3. Scudder apologized for missing them. Paul R. suggested getting a draft of further reports to the council a month before they are addressed.

EERMC WEBSITE:

Paul asked if members received the colored version of the site. He said it was modeled after other state agencies like the OER. He wanted interaction with the public as soon as possible. The price is \$1850. Who would manage it? Paul R. said the consultants could add the changes. OER could post the minutes. Paul R. suggested a part time (10 hrs a week) person who could help OER staff the EERMC. They could be a bridge between the EERMC & OER. Chris P. mentioned an internship.

Joe N. asked if there was council consensus on putting up a website.

Dan J. mentioned that finding EERMC documents in the state data base is not easy. He asked if there were state rules about content. Paul R. said that council has to meet APA requirements anyway. People expect agencies and councils to have websites. Paul asked Karina if the public would expect the council to have a website. She said it was hugely important to have council procedures accessible to the public.

Andy D. felt it was important of the council to have an identity separate from the OER.

Sam K. said it was an important thing to do to get the info out there and it could generate excitement for programs.

Dan J. asked if council will be over budgeted. Chris P. said that the state web site will be paid for from EERMC funds in NGRID account. Jeremy N. said it would work the same as with other council expenditures, send him an invoice and he will write the check.

Paul R. made a motion to expend \$1850 on a website. It was seconded by Dan J. and passed unanimously.

THESIS PRESENTATION ON OFFSHORE WIND DEVELOPMENT IN RI

Libby DeLucia, a Brown graduate student in the Environmental Studies Program gave a presentation on the cost Benefit Analysis of the RI winds Offshore Wind project. The power point is attached below.

The conclusion reached where that the cost of energy is above it market value for the majority of project life. However, externalities may compensate for the premium cost of energy. For the next steps further study is needed to quantify externalities.

Dan J. asked about the source of the energy forecasts. It was based on EIA AEO 2009 forecast.


Andy D. thought estimates of electricity rates were low. After the recession 6 cent electricity is a thing of the past and will rise to more like 30 cents in 20 years.

Chris P. agrees that prices can rise. There is a lot of room for volatility. Andy cited long term contract methods that can be use. The point was for RI to use the wind project as a hedge against electricity price increases.

Scudder P. asked if her analysis included the possibility of a long term contract.. Chris P. talked about certainty of long term contact. Will the power be there in 8 years?

Sam K. asked about the assumption of a twenty year lifespan in the project. Libby consulted Dennis Loria helped he come up with the number and she said that she always heard that it was an industry standard. Andy D. said that when the turbine wear out the developer can replace them with more efficient turbines from the revenue stream that can cost even less


A motion to adjourn was made by Joe N., it was seconded by Dan J. and the meeting was adjourned at 5:50 PM.




Offshore Wind Development in Rhode Island

Cost-Benefit Analysis of Proposed Project

Libby DeLucia
Honors Environmental Studies Thesis Presentation
4.23.2009
UEL, Brown University





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Kurt Teichert, *Brown University*
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Outline

- Findings & Impact of Thesis
- Cost-benefit Analysis
- Next Steps & Recommendations



Findings & Impact

THIS THESIS

- Cost of energy is above its market value for majority of project life
- Externalities may compensate for premium cost of energy

NEXT STEP

- Further study needed to quantify externalities

OUTCOME

- If further study is favorable, RI policy & regulations should enable development of the project

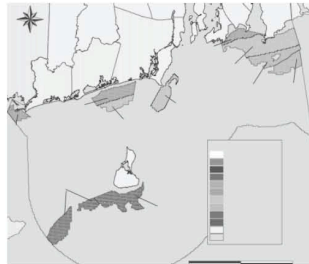


Project Assumptions

Block Island site

~370 MW

Operates for 20 yrs
beginning in 2014



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Cost-benefit Analysis

- Global Warming mitigation
- Levelized cost of energy
- Market value of energy

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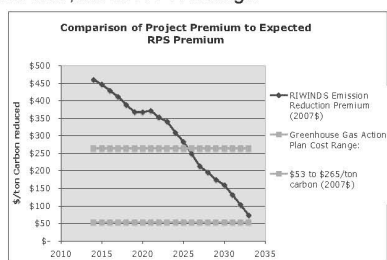


Global Warming

Displace 180,000 tons carbon emissions per year

6% of Rhode Island's total direct emissions

Exceeds renewable energy target in RI GHG Action Plan by 40,000 tons, but above cost range.



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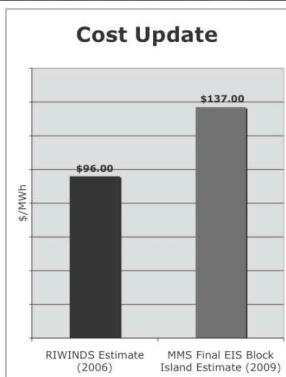


Levelized Cost of Energy

40% increase from RIWINDS Study to Cape Wind Final EIS

Reasons for increase:

Turbine, copper & steel price, financing cost increases

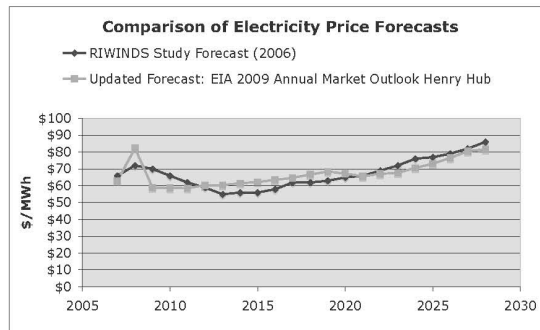


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Electricity

Current forecast similar to RIWINDS Study forecast



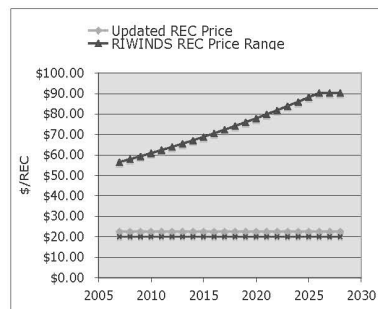
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Renewable Energy Credits

Uncertain Market

Prices recently dropped from ~\$50/REC to ~\$25/REC

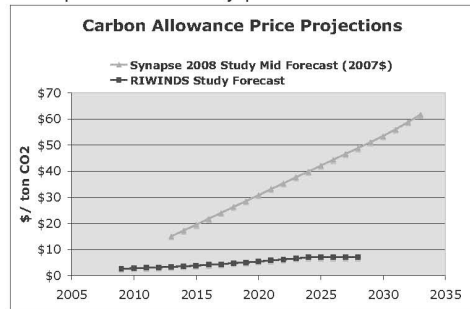


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Carbon Market

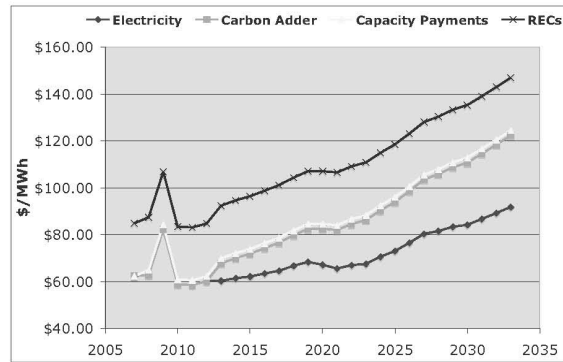
Synapse 2008 CO₂ Price Forecast: Mid-range
Direct impact on electricity prices



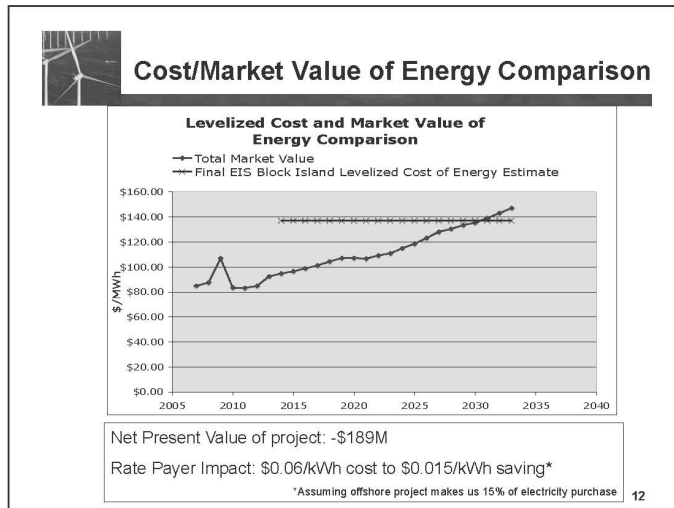
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Cumulative Market Value



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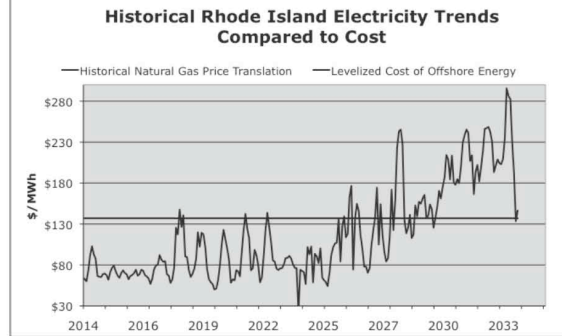
Next Steps: Value Externalities

- Hedge against Price Volatility
- Economic Development
- Others

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Hedge Against Volatility



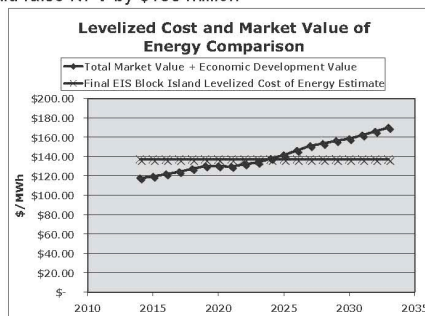
Historic natural gas prices translated to future electricity prices to give sense of potential volatility

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Economic Development

- Recent NYSERDA Study: Positive economic development impact \$23/MWh for wind development
- Would raise NPV by \$150 million



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Other Benefits

Business Certainty

Production Tax Credits

Others?

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Conclusions

THIS THESIS

- Cost of energy is above its market value for majority of project life
- Externalities may compensate for premium cost of energy

NEXT STEP

- Further study needed to quantify externalities

OUTCOME

- **If further study is favorable, RI policy & regulations should enable development of the project**

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**Thanks again to those who
made this thesis possible**

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APPENDIX

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Electricity & Carbon Methods

Electricity Price = Heat Rate * HH\$/BTU * basis

Forecast using current natural gas forecast (EIA AEO 2009), 2006 Market Heat Rate (ISO New England), & basis based on Algonquin Citygate to Henry Hub ratio for past calendar year

Carbon Adder: Direct impact on electricity prices:

- Determined using 2006 Marginal Emission Rate: 993 lbs CO₂/MWh = 0.4965 tons CO₂/MWh

Global Warming Impact

- Determined using 2006 Marginal Emission Rate (ISO NE); 1.3 million MWh/yr production
- Emission Reduction Premium = Total Cost of Energy – Electricity Revenue – Capacity Revenue

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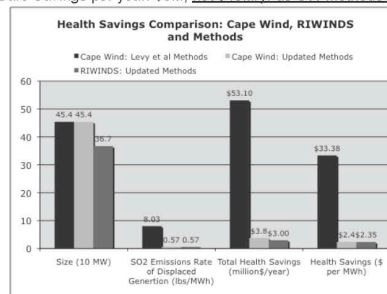


Health Care

Displaces pollution: SO₂, NO_x, others → Reduces premature mortality & health costs

Adopted Cape Wind study:

Health Care Savings per year: \$3M, not \$43M/yr as CW methods suggest



Raises NPV by \$18M when taken into account

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